

Claims 1-14 and 20-25 are rejected under 35 USC 103, and claims 2, 3, 7, and 8 include words such as "slowly" and "low" resulting in a 35 USC 112 rejection thereof. Corrections to such language has been made below under Amendments.

Claims 1-14 and 20-25 will be amended or addressed below under Amendments to render the claims allowable.

New claims are added below in Amendments, and the fee payment for the additional claims is attached.

Also, attached is a new Information Disclosure Statement, Substitute for form 1449A/PTO and the fee associated therewith, along with full or partial copies of the listed prior art, to be considered by the Examiner and made of Record. Please do not hesitate to request from Applicant, if need be, complete copies of any of the listed disclosures which only partial copies have been provided. Applicant will promptly try, upon request, to hunt down and print out more of the disclosures.

Applicant is pro se and requests that the PTO consider and make of Record each of the disclosures cited by Applicant.

Also, on 05/22/99 in paper number 3 of application 08/942,450, now U.S. Patent 6,102,802 which is the parent application of the present continuation application, Applicant stated he had been verbally informed that a prior art game controller existed. A second disclosure of this prior art controller was made by Applicant on 02/22/00 in the instant application. This prior art controller was stated as having at least one depressible button to drive a gear and rotate a rotary potentiometer which creates an analog signal based on button position, not pressure. In paper number 3 of U.S. Patent 6,102,802, Applicant stated he was informed that the prior art controller was made by "Neo Geo", but now believes this may have been incorrect and that the controller was made by NAMCO.

The Examiner is reminded that Applicant has addressed patentability over such prior art, see pages 15-16 of Applicant's

Paper #6 responsive to the 8/18/99 Office Action regarding Application 08/942,450, now U.S. Patent 6,102,802 which is the parent application of the present continuation application.

Regarding the 35 U.S.C. 103 rejection of claims 1-14 and 20-25 over Inoue et al (US 5,207,426) in view of Asher (US 5,689,285): Inoue et al does not disclose pressure-sensitive analog sensors in order to provide an analog signal so that a user can control imagery action intensity with a single depressible individual button. Asher does not disclose a single depressible individual button. Asher teaches a radially tiltable joystick bi-directionally operable on two axes simultaneously, see Asher column 4, lines 59-61. Not only does Asher fail to suggest pressure-sensitive analog sensors with a single depressible individual button, but Asher teaches away from use of a pressure-sensitive analog sensor with a single depressible individual button by virtue of the fact that Asher has gone to great lengths to create a device operable on two axes simultaneously and bi-directional with a tiltable actuator.

The combination of Inoue et al and Asher completely fails to teach or suggest "depressing said depressible single individual button with varying pressure for varying the action intensity of said simulated game character" as set forth in the amended claims below.

Therefore, allowance of all of the claims as amended and as newly presented is respectfully requested. Thank you.

AMENDMENTS

Amendments to the claims

Please amend the claims as below directed. Also, please insert the additional new claims 26-52 into the claims section. Please examine and find all claims allowable. Thank you.

1. (once amended) [An improved] A method of controlling action intensity of a simulated game character by way of depressing at least one depressible single individual button, said depressible single individual button located on a right-hand area of a two-hand held housing, said depressible single individual button for activating one single pressure-sensitive variable-conductance [analog] sensor, said pressure-sensitive variable-conductance [analog] sensor electrically connected to electronics, said electronics including means for controlling a display, said display for displaying said simulated game character;

wherein the [improvement] method includes the step depressing[, using a digit of a human user's hand,] said depressible single individual button with varying [degrees of pressure] pressure for varying the action intensity of said simulated game character.

2. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 1 wherein said action intensity is at least represented by movement speed of said game character, whereby said game character moves [slowly] at a first speed with [low] a first depressive pressure applied to said button, said game character moves [faster] at a second speed with a second [increased] depressive pressure applied to said button, said second depressive pressure is greater than said first depressive pressure, and said second speed is greater than said first speed.

3. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 1 wherein said action intensity is at least represented by jumping height of said game character, whereby a human user depresses said button using [low] a first depressive pressure causing said character to jump a [low] first height, and the human user depresses said button using a second [higher]

depressive pressure causing said character to jump a [higher] second height.

4. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 1 wherein said game character is a simulated car, said car is slowed proportionally to increasing depressive pressure applied by the user to said button.

5. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 1 wherein said game character is a simulated gun, said varying [degrees of pressure] pressure for varying fire rate of said gun.

6. (once amended) [An improved] A method of controlling action intensity of a simulated game character by way of depressing at least one single depressible individual button, using only a single digit of a human user's hand, said single depressible individual button for activating a single pressure-sensitive variable-conductance sensor; wherein the [improvement] method includes the step

depressing said single depressible individual button with varying [degrees of pressure] pressure for varying the action intensity of said simulated game character.

7. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 6 wherein said action intensity is at least represented by movement speed of said game character, whereby said game character moves [slowly] at a first rate with [low] a first degree of depressive pressure applied to said button, said game character moves [faster] at a second rate with [increased] a second degree of depressive pressure applied to said button.

8. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 6 wherein said action intensity is at least represented by jumping height of said game character, whereby a human user depresses said button using [low] a first degree of depressive pressure causing said character to jump [a low] to a first height, and the human user depresses said button using [higher] a second degree of depressive pressure causing said character to jump [a higher] to a second height.

9. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 6 wherein said game character is a simulated car, said car is slowed proportionally to increasing depressive pressure applied by the user to said button.

10. (once amended) [An improved] A method of controlling action intensity of a simulated game character according to claim 6 wherein said game character is a simulated gun, said varying [degrees of] pressure for varying fire rate of said gun.

(once amended) [8.] 11. A game console at least in part controlled by a game control, said game control comprising

a housing to be grasped and held simultaneously by two hands of a human user during use, said housing including a right-hand area and a left-hand area, said right-hand area being an area for grasping by the user's right hand, said left-hand area being an area for grasping by the user's left hand;

a plurality of depressible electricity manipulating devices each at least in-part exposed on said housing, at least some of said plurality of electricity manipulating devices positioned on said housing to be within reach of the user's right-hand thumb;

at least one of said electricity manipulating devices is a pressure-sensitive variable-conductance sensor operable by a

depressible individual button located within said right-hand area and reachable by the user's right-hand thumb, said variable-conductance sensor including conductive material, said conductive material having a shaped surface deformable at least in part [including means] for creating an analog electrical signal representing varying applied physical pressure;

[at least one of said electricity manipulating devices including means for creating an On/Off signal; each of said electricity manipulating devices electrically connected to] electronics means for at least reading said analog electrical signal. [the signals of said electricity manipulating devices.]

12. (once amended) A game control according to claim 11 wherein said electronics means [includes an ASIC] further for reading at least one of said electricity manipulating devices exclusively as an On/Off switch.

13. (once amended) A game control according to claim 11 wherein said electronic means additionally for outputting to said game console said analog electrical signal and an On/Off signal, the signals representing operation of said variable-conductance sensor. [at least one of said electricity manipulating devices including means for creating an analog electrical signal representing varying applied physical pressure, and said at least one of said electricity manipulating devices including means for creating an On/Off signal, are a single said electricity manipulating device.]

14. (once amended) A game control according to claim [13] 11 wherein said electronics means includes an ASIC, and said variable-conductance sensor includes a resilient dome cap, said conductive material supported on an underside of said dome cap, said shaped surface is generally convexed.

16. (once amended) An electricity manipulating sensor for a control device, said sensor comprising;

a depressible resilient dome cap supporting
conductive material having a generally convexed surface,
said conductive material in a raised position [above
circuit traces with] when said sensor is in an open position
indicating an Off output, said resilient dome cap depressible to
contact said convexed surface of said conductive material with
[said circuit traces] circuit trace means for providing circuitry
useful in combination with said conductive material to form a
closed position indicating an On output, said conductive material
being pressure-sensitive variable-conductance material for
creating analog output proportional to varying physical pressure
applied by the user's digit; said conductive material is
flexible, deforming with additional physical pressure to somewhat
flatten-out and contact additional surface area of said circuit
trace means to provide conductivity changes; said sensor
electrically connected to

active electronics means for interpreting the outputs of
said sensor.

20. (once amended) A game control comprising
a housing to be grasped and held simultaneously by two hands
of a human user, said housing including a right-hand area and a
left-hand area, said right-hand area being an area for grasping
by the user's right hand, said left-hand area being an area for
grasping by the user's left hand;

a plurality of depressible electricity manipulating devices
each at least in-part exposed on said housing, at least some of
said plurality of electricity manipulating devices positioned on
said housing to be within reach of the user's right-hand thumb;

at least one of said electricity manipulating devices is a
pressure-sensitive variable-conductance sensor located in said
right-hand area for being depressed by the user's right-hand
thumb, said pressure-sensitive variable-conductance sensor

including means for creating an On/Off output, and with varied pressure creating an analog output;

active electronics means for at least interpreting the outputs of said at least one electricity manipulating device.

21. (once amended) A game control according to claim 20 wherein said electronics means includes an ASIC, and said variable-conductance sensor includes flexible material having a substantially convex surface, said material deforming with additional pressure to somewhat flatten-out and contact additional surface area to provide conductivity changes of said sensor.

22. (once amended) A method of manufacturing a game control, including the steps:

a) forming a housing shaped to be held simultaneously by two hands of a human user;

b) assembling electronics into said housing;

c) installing electricity manipulating devices connected to said electronics;

d) installing individual depressible buttons exposed on said housing operatively associated with [positioning] said electricity manipulating devices [in-part exposed on said housing] said buttons positioned to be depressed by [digits] a thumb of the human user's right hand;

e) installing into said housing at least one depressible pressure-sensitive variable-conductance analog sensor, said sensor connected to said electronics, said sensor depressible by a single digit of a human user's hand.

23. (once amended) A method of manufacturing a game control according to claim 22 further including the step

installing a resilient dome cap located to be operational with pressure-sensitive material of said pressure-sensitive variable-conductance analog sensor.

24. (once amended) A method of manufacturing game controls according to claim 22 further including the step

installing an injection molded rubber dome cap located to be operational with said pressure-sensitive variable-conductance analog sensor.

25. (once amended) A method of manufacturing a game control according to claim 24 further including the step

installing an individual depressible button for activating said pressure-sensitive variable-conductance analog sensor.

26. A game controller according to claim 15 wherein a surface of said material is convexed.

27. A game controller according to claim 26 wherein said material is flexible, deforming with additional physical pressure to somewhat flatten-out and contact additional surface area to provide conductivity changes of said sensor.

28. A game controller according to claim 15 wherein said material includes an apex.

29. A game controller according to claim 28 wherein said material is flexible, deforming with additional physical pressure to somewhat flatten-out and contact additional surface area to provide conductivity changes of said sensor.

30. A method of manufacturing a game control according to claim 22 including providing said pressure-sensitive variable-conductance analog sensor with conductive material having a convexed surface, and further, providing said conductive material as flexible material deformable with physical pressure to somewhat flatten-out and contact additional surface area of circuitry of said sensor to provide conductivity changes.

31. A game control according to claim 14 wherein said electronics means is further for reading at least one of said electricity manipulating devices exclusively as an On/Off switch.

32. A game control according to claim 31 wherein said electronic means is additionally for outputting to said game console said analog electrical signal and an On/Off signal, the signals representing operation of said variable-conductance sensor.

33. A game control according to claim 32 wherein said electronic means includes an ASIC.

34. A game control according to claim 32 wherein said variable-conductance sensor includes conductive trace means for conducting electricity.

35. A game control according to claim 34 wherein said conductive trace means includes a first circuit trace and a second circuit trace, the traces connected by a conductive material.

36. A game control according to claim 11 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance sensors operable by four depressible individual buttons located within said right-hand area and reachable by the user's right-hand thumb.

37. A game control according to claim 14 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance sensors operable by four depressible individual buttons located within said right-hand area and reachable by the user's right-hand thumb.

38. A game control according to claim 20 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance sensors operable by four depressible individual buttons located within said right-hand area and reachable by the user's right-hand thumb.

39. A game control according to claim 21 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance sensors operable by four depressible individual buttons located within said right-hand area and reachable by the user's right-hand thumb.

40. A game control according to claim 33 wherein at least four of said electricity manipulating devices are pressure-sensitive variable-conductance sensors operable by four depressible individual buttons located within said right-hand area and reachable by the user's right-hand thumb.

41. An improved method for controlling game imagery with a game control, said game control at least in part controlling imagery created by an image generation machine, said game control of the type having a housing designed to be held in two hands simultaneously, said housing having a right-hand area and a left-hand area, located in said right-hand area are depressible single individual buttons, said buttons positioned to be depressed by a user's right hand thumb, depression of said buttons is for controlling said imagery; said improvement comprises the step of:
providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of one of said buttons.

42. An improved method for controlling game imagery with a game control according to claim 41 wherein said improvement further comprises the step of:

providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of a second one of said buttons.

43. An improved method for controlling game imagery with a game control according to claim 42 wherein said improvement further comprises the step of:

providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of a third one of said buttons.

44. An improved method for controlling game imagery with a game control according to claim 43 wherein said improvement further comprises the step of:

providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of a fourth one of said buttons.

45. An improved method for controlling game imagery with a game control according to claim 44 wherein said improvement further comprises the step of:

providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of a fifth one of said buttons.

46. An improved method for controlling game imagery with a game control according to claim 45 wherein said improvement further comprises the step of:

providing variable action intensity of said game imagery at least in part controlled by pressure-sensitive variable depression of a sixth one of said buttons.

47. An improved method for controlling game imagery with a game control according to claim 41, wherein said image generation machine is a game console.

48. An improved method for controlling game imagery with a game control according to claim 47, wherein said game imagery includes a simulated game character.

49. An improved method for controlling game imagery with a game control according to claim 48, wherein said variable depression of one of said buttons causes variable jumping height of said game character.

50. An improved method for controlling game imagery with a game control according to claim 48, wherein said variable depression of one of said buttons causes variable firing rate of said game character.

51. An improved method for controlling game imagery with a game control according to claim 48, wherein said simulated game character is a vehicle and said variable depression of one of said buttons causes variable speed of said vehicle.

52. An improved method for controlling game imagery with a game control according to claim 51, wherein said vehicle is a race car.

REMARKS

"If" the Examiner notes a mistake in the amended claims above, such as a word added but not underlined, or a word deleted (missing) and not bracketed, which is easy to do even though I thoroughly checked for such mistakes, would the Examiner please be so kind as to assist Applicant with correcting such mistakes, such as by an Examiner's amendment for example. Thank you.

Applicant's proposed "Reasons for Allowance"

The prior art of record could not alone or in combination anticipate or make obvious the combination of features as claimed including pressure-sensitive variable-conductance depressible